



# Planetary Protection for Human Exploration Missions NPI 8020.7

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# NASA Advisory Council Recommendation



**TITLE:** Planetary Protection Procedural Requirements Document for Human Extraterrestrial Missions

**RECOMMENDATION:** The NASA Advisory Council recommends that NASA develop the appropriate implementing document to specify planetary protection procedural requirements for human extraterrestrial missions at a level corresponding to the current COSPAR (Committee on Space Research) planetary protection policy, and update it as new knowledge becomes available.

**MAJOR REASONS FOR PROPOSING THE RECOMMENDATION:** NASA Policy Directive 8020.7G on “Biological Contamination Control for Outbound and Inbound Planetary Spacecraft” requires the development of detailed documents delineating the standards and procedures implementing compliance with planetary protection standards and procedures for human spaceflight missions. Currently, however, no such documents exist for human missions.

**CONSEQUENCES OF NO ACTION ON THE PROPOSED RECOMMENDATION:** NASA will be out of compliance with its own policy requirements as it plans the prominent flagship missions of human exploration and with international agreements to which the U.S. is a party.

# 3/8/2013 NASA Response to NAC



- **NASA concurs and will form a core team to:**
  - Draft, review and revise a NASA Procedural Requirements Document over the course of the next calendar year.
  - Identify comments and concerns and then vetted responses will be incorporated into the draft NPR and supporting materials.
- **NPR will be submitted to NODIS for review by the directorates**
- **Final approval and circulation for signature of NPR.**

# Planetary Protection for Human Exploration



## NPR CORE TEAM MEMBERS:

- **Human Exploration and Operation Mission Directorate:**  
Bette Siegel, Co-Lead
- **Science Mission Directorate:**
  - Catharine Conley, Co-Lead - Planetary Protection Officer
  - Barbara Adde – detailee from HEO to SMD
  - Michael Meyer
- **Office of the Chief Health and Medical Officer:** David Liskowski
- **Office of the General Counsel:** Robin Frank
- **Office of the Chief Scientist:** Gale Allen
- **Office of International and Interagency Relations:** Shari Kamm
- **Space Technology Mission Directorate – TBD**

## HEO Divisions

- **Advanced Exploration Systems Division:** Jitendra Joshi
- **Exploration Systems Development Division:** Steve Clarke
- **Space Life and Physical Sciences Research and Applications Division:** Steven Davison
- **Advanced Exploration Systems Division:** Bette Siegel

**Planetary Protection core team determined that we did not have the necessary technical requirements to draft an NPR.**

## **Drafted a NASA Policy Instruction (NPI) – Benefits of NPI**

- Agency wide – stays in place until removed-must be followed by the entire Agency
  - OGC has advised that there are various type of policy documents used as policy guidance applicable to all parts of NASA. An advantage of the NPI is it is available in NASA's agency-wide Directives system (NODIS) and is thus easily available.
- Would state that an NPR will be drafted for planetary missions involving humans when the necessary specific requirements are developed, emphasizing reasons why building Planetary Protection studies into programs now is key.
- Can be processed much more quickly than an NPR.
- Would incorporate COSPAR policy.
- NPI does not need specific requirements

# Next Steps – 2014 and 2015



- **MAY 2014: NPI released and included in NODIS**
- **MAY 2014: Initial literature survey complete to identify notional studies**
- **MAY/JUNE 2014: Formulation of a planetary protection workshop and study prioritization task force**
- **AUG 2014: Hold introductory briefing with Human Spaceflight Architecture Team (HAT) personnel for engagement in studies**
- **March 2015: Conduct a workshop to identify the current state of knowledge in Planetary Protection & Human Mission Systems**
- **MAY 2015: Create prioritized list of needed studies to inform requirements**
- **AUG 2015: Approval of studies for funding no later than FY 2016**
- **OCT 2015: Iteration of draft requirements in parallel with studies**